

REMARKSI. Request for Reconsideration of Restriction RequirementA. Provisional Election and Traversal

Previously, Applicants provisionally elected Group II, Claims 15-19, the election being with traverse. The 8/24/2004 Office Action maintained the restriction, indicating that Claims 10-14, 20, 32, and 33 were withdrawn from consideration and that Claims 32 and 33 were directed to a non-elected species.

The Office Action does not expressly set forth that the restriction is made final, thus Applicants respectfully request reconsideration.

It is submitted that 10-14 and 20 are properly considered with the claims of Group II because the relationship between what the Examiner has identified as different species. However it is submitted that there is a commonality of function between the claim groups. For example in either Claim 10 (of Group I) and Claim 15 (of Group II) the sensor array is arranged at a tilt angle α with respect to the optical path with the image is collected at various rotational angles while maintaining the tilt angle α . Such a commonality of function and effect is further evidenced by linking Claim 30.

Thus it is submitted that the Office Action has not established sufficient basis for insisting upon the restriction and it is requested that the restriction be removed.

B. Presentation of Linking Claim

In the event the restriction is not removed, it is submitted that new Claim 30 is a linking/generic claim and upon allowance of that claim, the restricted claims should be examined. MPEP § 806.04(d).

II. Status of Claims

Claims 10-33 are pending in the present application. Claims 10-14, 20, 32, 33 have been withdrawn by the Examiner.

III. Amendment to Specification and Drawings

The specification has been amended at Par. 0001 to update with respect to the parent application's patent number as requested by in the Office Action.

A. Element Numeral 484

The drawings have been objected to as not containing element 484 mentioned in the specification at Par. 0046. Fig. 4b has been amended adding the element numeral 484. It is

noted that in the informal drawing Fig. 4b in the application as originally filed, there is a lead line for this element, but apparently the element numeral was cut off in the copying and was also not included in the formal drawing as filed. Nonetheless, it is evident from the context of the specification of the location for this element numeral.

B. Element Numerals 475, 476

The drawings have also been objected to as including element numerals 475, 476 in Fig. 4b that are not set forth in the specification. The specification has been amended at Par. 0046 to include reference to these element numerals.

It is submitted that the amendments to the drawings and specification are supported by the application as originally filed and add no new matter. It is further submitted that these amendments obviate the objections to the drawings.

IV. Claims 15-19 and 21-31

Claims 15-19 and 21-31 have been rejected under 35 USC 103 over Shellhammer '552 in view of Bremer '998. This rejection is respectfully traversed.

A. Claims 15-19 and 21-28

Claim 15 includes the limitations:

a lens system for focusing along an optical path an image of an object being read;

a plurality of image sensor arrays disposed in the optical path for detecting a signal representative of light reflected from the object through said lens system, wherein each of said image sensor arrays is disposed at approximately a same tilt angle α with respect to the optical path according to the Scheimpflug principle, wherein each of said image sensor arrays being oriented at a different rotational angle to the optical path in relation to one another.

Claim 22 includes the limitations

means for focusing, along an optical path, an image of an object being read;

a plurality of image sensor arrays arranged about the optical path, each of said image sensor arrays being disposed at approximately a same tilt angle α with respect to the optical path according to the Scheimpflug principle, wherein each of said image sensor arrays is oriented at a different rotational angle to the optical path in relation to one another.

In contrast, Shellhammer '552 does not disclose such combinations. The Office Action asserts that the optical path is the path in Fig. 10 "from (2) to (40)." However, there is no lens system (Claim 15) or means for focusing (Claim 22)

disclosed in this figure. If there is a lens system or means for focusing, presumably it is included at the array. Thus even if there is a lens system or means for focusing, all the linear arrays are arranged perpendicularly to the optical path and in the same plane, and thus are not arranged at a tilt angle α with respect to the optical path according to the Scheimpflug principle as claimed. The radial CCD array 40 of Shellhammer '552 is merely designed to mimic a pattern of scan lines 18 as in Fig. 5 therein. Moreover, by calculating skew angle, the Shellhammer '552 patent is evidently not employing a system according to according to the Scheimpflug principle.

Therefore it is submitted that a *prima facie* case of obviousness is not made with respect to Claim 15 or Claim 22.

Moreover, it is noted from the USPTO Assignment records for the Bremer 6,689,998 patent and the present application indicate ownership by the same entity. On that basis, it is understood that the Bremer '998 patent and the present application were at the pertinent time owned by the same entity (or subject to an obligation of assignment to the same entity). Thus it is submitted that the Bremer '998 patent does not qualify as prior art under 35 USC 102(e).

Therefore it is submitted that a rejection under 35 USC 103 cannot be made for Claim 15 or Claim 22. Claims 16-19, 21

and 23-28 should also be allowable in part as depending upon an allowable base claim.

B. Claim 29

Claim 29 is directed to a method comprising the steps of

focusing, along an optical path, an image of an object being read;

arranging a plurality of image sensor arrays about the optical path with each of said image sensor arrays being disposed at approximately a same tilt angle α with respect to the optical path according to the Scheimpflug principle, wherein each of the image sensor arrays being oriented at a different rotational angle to the optical path in relation to one another;

detecting, at each of the image sensor arrays, a signal representative of light reflected from the object.

In contrast, Shellhammer '552 does not disclose such a method. The Office Action asserts that the optical path is the path in Fig. 10 "from (2) to (40)." However, Shellhammer '552 does not disclose focusing along an optical path in this figure. If the Shellhammer '552 system is focusing, the focusing presumably occurs at the array. Thus even if there is focusing along an optical path, all the linear arrays are arranged perpendicularly to the optical path and in the same plane, and thus are not arranged at a tilt angle α with respect to the

optical path according to the Scheimpflug principle as claimed. The radial CCD array 40 of Shellhammer '552 is merely designed to mimic a pattern of scan lines 18 as in Fig. 5 therein. Moreover, by calculating skew angle, the Shellhammer '552 patent is evidently not employing a system according to according to the Scheimpflug principle.

Therefore it is submitted that a *prima facie* case of obviousness is not made with respect to Claim 29.

Moreover, it is noted from the USPTO Assignment records for the Bremer 6,689,998 patent and the present application indicate ownership by the same entity. On that basis, it is understood that the Bremer '998 patent and the present application were at the pertinent time owned by the same entity (or subject to an obligation of assignment to the same entity). Thus it is submitted that the Bremer '998 patent does not qualify as prior art under 35 USC 102(e).

C. Claims 30-31

Claim 30 is directed a method comprising the steps of
focusing, along an optical path, an image of
an object being read;
projecting the image toward a collection
system comprised of one or more sensor arrays, each
sensor array being arranged at a tilt angle α with
respect to the optical path according to the
Scheimpflug principle;

detecting the image at differing rotational angles relative to the optical path while maintaining the tilt angle α of the sensor array with respect to the optical path.

In contrast, Shellhammer '552 does not disclose such a method. The Office Action asserts that the optical path is the path in Fig. 10 "from (2) to (40)." However, Shellhammer '552 does not disclose focusing along an optical path in this figure. If the Shellhammer '552 system is focusing, the focusing presumably occurs at the array. Thus even if there focusing along an optical path, all the linear arrays are arranged perpendicularly to the optical path and in the same plane, and thus sensor array is not arranged at a tilt angle α with respect to the optical path according to the Scheimpflug principle as claimed. The radial CCD array 40 of Shellhammer '552 is merely designed to mimic a pattern of scan lines 18 as in Fig. 5 therein. Moreover, by calculating skew angle, the Shellhammer '552 patent is evidently not employing a system according to according to the Scheimpflug principle.

Therefore it is submitted that a *prima facie* case of obviousness is not made with respect to Claim 30.

Moreover, it is noted from the USPTO Assignment records for the Bremer 6,689,998 patent and the present application indicate ownership by the same entity. On that basis, it is understood that the Bremer '998 patent and the present

application were at the pertinent time owned by the same entity (or subject to an obligation of assignment to the same entity). Thus it is submitted that the Bremer '998 patent does not qualify as prior art under 35 USC 102(e).

Dependent Claim 31 should also be allowable in part as depending upon an allowable base claim.

V. Conclusion

Therefore it is submitted that Claims 15-19 and 21-31 are allowable.

Upon allowance of linking claim 30, it is submitted that pursuant to MPEP § 806.04(d), the restriction should be withdrawn and withdrawn Claims 10-14, 20 and 32-33 should be examined.

Respectfully submitted,

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Amendment to Drawings

Fig. 4b has been amended adding the element numeral 484 and the corresponding lead line. In addition, the formal drawing of Fig. 4b has been amended to add shading to element 465 to correspond to the informal drawing as filed.

A replacement page, sheet 3, bearing Fig. 4b is attached.